



King County

1200 King County
Courthouse
516 Third Avenue
Seattle, WA 98104

Meeting Agenda Board of Health

*Metropolitan King County Councilmembers: Rod Dembowski, Chair;
Kathy Lambert, Vice Chair; Joe McDermott
Alternate: Jeanne Kohl-Welles*

*Seattle City Councilmembers: Sally Bagshaw, Vice Chair; Lorena González, Debora Juarez
Alternate: Bruce Harrell*

*Sound Cities Association Members: David Baker, Vice Chair; Largo Wales
Alternates: Susan Honda, Shelley Kloba*

*Health Professionals: Ben Danielson, MD; Bill Daniell, MD
Non-Voting: Christopher Delecki, DDS, MBA, MPH, Vice Chair*

*Director, Seattle-King County Department of Public Health: Patty Hayes
Staff: Maria Wood, Board Administrator (206-263-8791)*

1:30 PM

Thursday, July 21, 2016

Room 1001

1. Call to Order
2. Roll Call
3. Announcement of Any Alternates Serving in Place of Regular Members
4. Approval of Minutes of June 16, 2016 **pg 3**
5. Public Comments
6. Director's Report



Sign language and communication material in alternate formats can be arranged given sufficient notice (206-1000).

TDD Number 206-1024.

ASSISTIVE LISTENING DEVICES AVAILABLE IN THE COUNCIL CHAMBERS.



Discussion and Possible Action

7. Resolution No. 16-07 [pg 7](#)

A RESOLUTION calling for meaningful actions to address lead poisoning and support for efforts to eliminate lead poisoning in King County.

Briefings

8. BOH Briefing No. 16-B13 [pg 11](#)

Preventing Lead Poisoning in King County

Nicole Thomsen, Environmental Public Health Planner, Environmental Health Services, Public Health – Seattle & King County and the Local Hazardous Waste Management Program
Steve Whittaker, PhD, Public Health Researcher, Environmental Health Services, Public Health – Seattle & King County and the Local Hazardous Waste Management Program

9. BOH Briefing No. 16-B14 [pg 19](#)

Gun Violence Prevention Program and Public Health Approaches to Firearm Suicide Prevention

Laura Hitchcock, JD, Program Manager, Gun Violence Prevention Program, Public Health – Seattle & King County
Chief Carol Cummings, Bothell Police Department
Jennifer Stuber, PhD, Associate Professor, UW School of Social Work; Executive Director, Forefront: Innovations in Suicide Prevention

10. **Chair's Report**

11. **Board Member Updates**

12. **Administrator's Report**

13. **Other Business**

Adjournment

If you have questions or need additional information about this agenda, please call 206-263-8791, or write to Maria Wood, Board of Health Administrator via email at maria.wood@kingcounty.gov



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Meeting Minutes Board of Health

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*Director, Seattle-King County Department of Public Health: Patty
Hayes
Staff: Maria Wood, Board Administrator (206-263-8791)*

1:30 PM

Thursday, June 16, 2016

Room 1001

DRAFT MINUTES

1. **Call to Order**

The meeting was called to order at 1:30 p.m.

2. **Roll Call**

Present: 9 - Ms. Bagshaw, Dr. Daniell, Dr. Danielson, Mr. Dembowski, Ms. Gonzalez, Ms. Juarez, Ms. Lambert, Mr. McDermott and Ms. Wales

Excused: 1 - Mr. Baker

3. **Announcement of Any Alternates Serving in Place of Regular Members**

Boardmember Kohl-Welles, Boardmember Kloba and Boardmember Delecki were also in attendance.

4. **Approval of Minutes of May 19, 2016**

Councilmember Delecki moved to approve the minutes of the May 19, 2016 meeting as presented. Seeing no objection, the Chair so ordered.

5. Public Comments

The following people spoke:

*David Crowell
Betsy Howe
Jodi Brown
David Winfrey
Jeremy Simmons
Alex Tsimerman
David Garland
Queen Pearl
Glenn Wallace
Warren Iverson
Alicia Cross
Jennifer Gaines*

6. Director's Report

Ms. Hayes reported that the Snohomish County Board of Health approved a pharmaceutical stewardship ordinance modeled very closely after the King County Board of Health Rule and Regulation passed in 2013. Ms. Hayes also reported that there have been two additional cases of the Zika virus in King County. Both patients have recovered.

Jeff Duchin, MD, Health Officer, Public Health - Seattle & King County, answered questions of the Board regarding the Zika virus.

Briefings**7. BOH Briefing No. 16-B10**

Suicide Prevention Campaign

Joe Simonetti, MD, MPH, Attending Physician Harborview Medical Center and Associate Investigator, Harborview Injury Prevention & Research Center briefed the Board on the upcoming Suicide Prevention Campaign.

This matter was Presented

8. BOH Briefing No. 16-B11

Pesticides in Cannabis - Invited Panel Discussion

Dr. Duchin; Sunil Kumar Aggarwal, MD, PhD (Medical Geography), FAAPMR, Palliative Medicine Physician, Associate Hospice Medical Director, MultiCare Health System Adult Palliative Medicine Services; and Gil Mobley, MD, gave a presentation on medical use of marijuana and concerns for pesticides in the cannabis supply.

This matter was Presented

Briefing and Public Comment

9. **BOH Briefing No. 16-B12**

On-Site Sewage Program - Proposed Service Model and Fee with Public Comment

Dr. Duchin; Ngozi Oleru, PhD, Division Director, Environmental Health, Public Health - Seattle & King County; and Darrell Rogers, PhD, reported on the on-site sewage program and the proposed service model and fees.

This matter was Presented

10. **Chair's Report**

No report was given.

11. **Board Member Updates**

No updates were given.

12. **Administrator's Report**

No report was given.

13. **Other Business**

Adjournment

The meeting was adjourned at 3:30 p.m.

If you have questions or need additional information about this agenda, please call 206-263-8791, or write to Maria Wood, Board of Health Administrator via email at maria.wood@kingcounty.gov

Approved this _____ day of _____.

Clerk's Signature

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KING COUNTY

1200 King County Courthouse
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Signature Report

July 14, 2016

Resolution

Proposed No. 16-07.1

Sponsors

1 A RESOLUTION calling for meaningful actions to address
2 lead poisoning and support for efforts to eliminate lead
3 poisoning in King County.

4 WHEREAS, lead is an extremely toxic metal that can have severe health impacts
5 on adults and children, and

6 WHEREAS, there is no safe level of exposure to lead, and

7 WHEREAS, exposure to lead has negative impacts on almost all systems of the
8 human body and can cause permanent disability and other health problems in children
9 such as learning disabilities, decreased IQs, behavioral problems, decreased physical
10 growth and other health issues, and

11 WHEREAS, lead poisoning is a preventable public health problem, and

12 WHEREAS, only a fraction of children exposed to lead in Washington state and
13 King County receive blood-lead-level testing, and

14 WHEREAS, it is estimated that data more than eight thousand children in King
15 County may have elevated blood lead levels, based on 2014 data, and

16 WHEREAS, older housing stock that contains lead-based paint is a continuing
17 source of lead poisoning in children, and

18 WHEREAS, approximately twenty percent of all King County housing was built
19 prior to 1950 and an additional forty-one percent was built between 1950 and 1979 when
20 use of lead-based paint and other materials was common, and

21 WHEREAS, some businesses in King County use large amounts of lead or
22 generate lead contamination that poisons adult workers, and adults exposed at work may
23 take lead home with them, thereby exposing their children and other family members,
24 and

25 WHEREAS, a disproportionate burden of lead poisoning is borne by communities
26 of color in King County, and

27 WHEREAS, the current occupational standards for lead in state and federal law
28 are based on scientific knowledge from the 1970s and do not reflect the current
29 understanding of lead's health effects, and

30 WHEREAS, the current occupational standards in state and federal law for lead
31 are not protective of workers and residents in King County;

32 NOW, THEREFORE, BE IT RESOLVED by the Board of Health of King
33 County:

34 A. The Board of Health calls on federal and state lawmakers to take meaningful
35 action to address lead poisoning;

36 B. The Board of Health encourages all King County healthcare providers to adopt
37 Washington state Department of Health guidance for lead screening of children at ages
38 twelve and twenty-four months, including screening all Medicaid-eligible children, and
39 screening based on the recommended child lead exposure risk assessment; and

40 C. The Board of Health supports updating the occupational lead standards for
41 lead in Washington state to provide greater protection for workers and their families.
42

BOARD OF HEALTH
KING COUNTY, WASHINGTON

Rod Dembowski, Chair

ATTEST:

Anne Noris, Clerk of the Board

Attachments: None

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King County

King County Board of Health

Staff Report

Agenda item No: 8

Date: July 21, 2016

BOH Briefing No: 16-B13

Prepared by: Nicole Thomsen, Steve Whittaker, and Ashley Pedersen

Subject

Preventing Lead Poisoning in King County

Purpose

The Public Health – Seattle & King County (Public Health) Environmental Health Services Division is providing an overview of current lead issues in King County with discussion of approaches to prevent and reduce lead exposure.

Summary

Exposure to lead is a significant health concern, especially for young children and infants, whose growing bodies absorb proportionally more lead than adults. Lead has no known purpose in the body. Exposures to lead and subsequent health effects vary depending on a person's age at time of exposure. For developing children, exposures generally occur in their home. Health effects may include learning disabilities, decreased IQ, behavioral problems, decreased physical growth, and other health and wellness issues.

Adults are mostly exposed to lead in their workplaces, often at levels that far exceed those that are considered safe by public health standards. Adults exposed to lead at work may inadvertently take lead home with them, for example on their bodies and clothing, where they contaminate their homes and expose their children and other family members. Communities of color and socioeconomically disadvantaged adults and children face a disproportionate burden of poisoning by this toxic metal – in King County and across the country – because of where these individuals live (poorly maintained housing) and work (high exposure industrial facilities and construction jobs).

Public Health is addressing lead poisoning in several ways. Primary strategies include providing assistance to lead-poisoned families, supporting and participating in the update of regulatory occupational health standards to reflect current science, and supporting residents to take actions to reduce and prevent exposure. Investing in the prevention of lead exposure will yield improvements in the health of our communities, especially for children.

On May 2nd Governor Inslee developed an action agenda for the Washington State Department of Health (DOH) effort to reduce lead exposures and ensure that at-risk children receive testing and the necessary follow-up care. These efforts are rooted in the knowledge that preventing lead poisoning is a foundational public health service.

Background

Lead is a naturally-occurring element that was one of the first metals used by humans. Significant past uses of lead across King County and the nation included lead-based paint, leaded gasoline and lead-arsenate pesticides. Because of the health concerns, lead-based paint was banned for use in residential and public buildings in 1977. Leaded gasoline was phased out starting in the mid-1980s. Lead-arsenate was banned as an insecticide in 1988.

Although exposures to lead have generally decreased as a result of these regulatory interventions, lead poisoning remains a significant, but preventable, environmental health problem. Major current sources of lead exposure include paint (lead-based paint and lead-containing dust can still be found in homes built before 1978, with homes built before 1950 posing the greatest risk) and contaminated soil (from historical industrial emissions, lead arsenate pesticide use, and leaded gasoline deposits).

Approximately 20% of all King County housing was built prior to 1950 and an additional 41% was built between 1951 and 1979.ⁱ Consequently, over 478,000 households, single family, and multi-family units could pose a potential lead hazard. Of King County housing stock outside of Seattle, 50% was built prior to 1970 and may contain lead paint and approximately 25% of this housing is occupied by low- to moderate-income households.ⁱⁱ

Additional sources of lead include drinking water, traditional remedies and cosmetics, imported toys and food, pottery, leaded crystal/pewter/brass dishware, vinyl blinds, leaded ammunition, and a variety of workplaces. Collectively, these additional exposure sources contribute just a fraction compared to the impacts of residential lead-based paint hazards on children.ⁱⁱⁱ Due to the recent lead in drinking water crisis in Flint, Michigan, there has been increased awareness and attention on lead in drinking water nationally and here in King County.

Health Effects

Lead has negative impacts on almost all systems of the human body, particularly the nervous- (brain), renal- (kidney), and hematologic- (blood) systems. Exposure to lead is measured using a blood test. The “blood lead level” or “BLL” is expressed in micrograms per deciliter of lead in whole blood (abbreviated to “µg/dL”). There is no established safe blood level for lead. Current blood lead levels of concern criteria for children and adults (5 µg/dL and 10 µg/dL, respectively) are used to trigger the need for action to reduce lead exposure.ⁱⁱⁱ

Over the last twenty years, the levels of concern for lead exposure have been lowered significantly, especially for neurodevelopmental effects in children. Especially at levels below 10 µg/dL, there is a strong negative relationship between IQ and blood lead level in children. Other related effects include decreased learning ability and attention span, lower school test scores, and

reduced fine motor skills. Increased school dropout rates, aggressiveness, and delinquency have been associated with lead exposure in some studies.^{iv} At high exposure levels, lead can cause problems like anemia, high blood pressure, seizures, and death. It is now established that there is no known safe level of lead exposure.^v

In adults, lead exposure causes acute and chronic health effects in multiple organ systems, ranging from subclinical changes in function to symptomatic, life-threatening lead poisoning. Recent studies indicate that lead exposure at very low doses can affect the cardiovascular system and kidneys. Lead may also cause cognitive dysfunction and reproductive problems. Recent research has shown decreased kidney function in adults at BLLs of 5 µg/dL and lower, and increased risk of hypertension (high blood pressure) and tremor at BLLs below 10 µg/dL.

Under Washington state law, clinical laboratories must report blood lead results to the Department of Health's Childhood Lead Poisoning Prevention Program. Blood lead data for children (under age 15) who are residents of King County are forwarded to Public Health. Data for adults are forwarded to the Adult Blood Lead Epidemiology and Surveillance (ABLES) program, located in the Washington State Department of Labor & Industries (L&I). Staff from Public Health and L&I initiate lead intervention efforts for lead-exposed children and adults, respectively.

Childhood Lead Poisoning in King County

Childhood lead poisoning remains a major pediatric environmental health issue across the nation.^{vi} The severe impacts of lead on the growth and development of children prompted the federal government to require surveillance of lead poisoning, the only non-communicable disease with this requirement.

King County is committed to improving all residents' foundation for reaching their full and individual potential and as such, recognizes the importance of investing in the County's youngest residents. This foundation stresses the importance of investing early to increase access to (among other resources) prenatal care, housing, food, and then moving to sustaining these gains. Lead poisoning can derail the intended outcomes of these efforts.

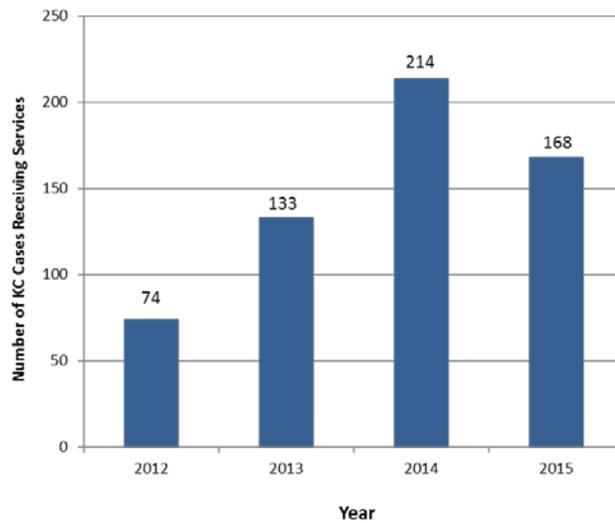
Data describing childhood lead exposure in Washington state are limited, and a more rigorous health surveillance effort would help better define the extent of the problem. At the present time, the age of the house a person lives in is the most established risk factor for lead poisoning. Washington ranks 17th in the nation in number of households built prior to 1950 (and therefore likely to contain lead-based paint) and ranks 17th in number of pre-1978 households. Despite these risk factors, Washington state ranks near the bottom nationally for blood lead testing of young children.^{vii}

Funding cuts at DOH's Childhood Lead Poisoning Prevention Program have hampered the ability to determine how many children are tested for lead exposure. However, it is estimated that the annual screening rate for children of 72 months of age and younger is 2.5% (data from 2007-2012). This is significantly lower than the national screening rate of 15.9% during the same

period. Of those tested, approximately 2.6% had BLLs at or above the current reference level of 5 µg/dL. Nationally the incidence rate of childhood lead poisoning is 6.6%. Assuming the national rate of lead poisoning, an estimated 8,511 children in King County (data from 2014) may have BLLs at or above 5 µg/dL.

Public Health provides case management services to all children with a BLL above the reference level, providing over 120 consultations every year (Figure 1). This is significantly lower than the number of children in King County who may need case management services.

Figure 1: Childhood Lead Poisoning Case Management in King County



Two recent actions are likely to increase the number of children tested for lead poisoning: 1) a December 2015 class action lawsuit settlement on behalf of children covered by Medicaid, and 2) new screening guidance for instructing Washington state’s health care providers to do blood lead testing based on the results of a lead risk assessment for all children at 12 and 25 months of age. If providers choose not to do the lead risk assessment of adequate information is not available to complete the risk assessment, children should be tested.

The individual- and societal- costs of childhood lead poisoning are significant. A recent analysis concluded that the estimated total lost expected lifetime income for five-year-old children in Washington state from lead exposure was nearly \$1.5 billion (2004).^{viii} Quality-adjusted life years lost to lead poisoning were estimated to be 15.55 years per child.^{ix} In King County this has been estimated at \$195 million and 393,000 healthy life years per birth cohort (2014 data).

Adult Lead Poisoning in King County

Adults may be exposed to lead via hobbies (e.g. casting bullets or fishing sinkers, home remodeling, target shooting at firing ranges, lead soldering, auto repair, stained glass making, and glazed pottery making) and the use of various substances (e.g. some folk remedies, some

"health foods", moonshine whiskey, and ceramic ware). However, most lead exposures for adults occur in the workplace.

Analysis of data from L&I's adult blood lead registry in November 2015 provided insight into lead poisoning in adults between 2010 and 2014. Data were provided for adults who were residents of King County at the time of their blood lead test, although they may have been employed elsewhere. Key findings of that analysis are:

- Almost three quarters of the patients were employed at businesses located in King County.
- A disproportionate burden of lead poisoning occurs in workers of color. Specifically, Vietnamese, Salvadoran, and other Hispanic workers because of their employment in high exposure industrial facilities and construction.
- Industries most frequently associated with lead exposure are specialty battery manufacturing, gun ranges, and bridge painting. These three industries accounted for 50% of lead-poisoned patients.

In November 2012, Public Health became aware of one of the largest outbreaks of occupational lead poisoning ever recorded in Washington state and likely in the U.S. Demolition and remodeling at Wade's Eastside Guns (Bellevue, WA) resulted in lead exposures above the CDC's level of concern for adults (10 µg/dL) in 46 workers. One worker had a blood lead level of 159 µg/dL and experienced symptoms of acute lead poisoning. Contractors also took lead home with them on their tools and clothing, where they contaminated their vehicles, hotel rooms, homes, and children.

This tragic incident demonstrated that current state and federal standards put workers and their families at risk. In Washington State, safety and health regulations are based on rules created by the federal Occupational Safety and Health Administration (OSHA). The Washington Industrial Safety and Health Act (WISHA) of 1973 empowers L&I to create and enforce rules and allows Washington rules to be more stringent than OSHA's. Both the state and federal standards are based on the level of scientific knowledge about lead toxicity available in the 1970s and do not reflect the current understanding of lead's health effects. In 2012-2013, Public Health petitioned the Governor and L&I to update Washington State's occupational lead standards. In response to Public Health's petitions, L&I started a stakeholder process to develop recommendations to update their outdated occupational lead standards. As of June 2016, L&I has convened five stakeholder meetings. L&I also started the formal standard revision process in April 2016 when they filed a Preproposal Statement of Inquiry (CR101) to change state law.

Recent Efforts in King County

Many institutions and jurisdictions are working to enhance lead poisoning prevention. For example:

- Public Health:
 - Supported the Washington state Board of Health’s revisions of the notifiable conditions rule, which lowered the case definitions for an elevated BLL in children and adults.
 - Participated in DOH’s Targeted Childhood Blood Lead Screening Guidelines expert panel.
 - Petitioned the Governor and L&I to update the lead standards (2013-2014) resulting in L&I’s Lead Safety Stakeholder Meetings in 2015-2016 and potential revision of the standards.
 - Provided coordinated case management to families with lead-poisoned children to identify and reduce or eliminate sources of lead in their environments.
 - Implemented the Tacoma Smelter Plume “Dirt Alert” program in King County.
 - Provided an informational briefing on lead in drinking water to the King County Health, Housing and Human Services Committee in June 2016.
 - Created educational materials about lead in drinking water, translated into multiple languages, and posted on the Public Health website.

- The City of Tukwila has implemented a rental housing inspection program that includes a requirement for compliance with renovation, repair, and painting lead safety work practices.
- The City of Seattle is considering a partnership with Healthy Babies, Bright Futures to address lead exposures.
- The Local Hazardous Waste Management Program (LHWMP) in King County initiated a social marketing project focused on residential lead-based paint. LHWMP’s policy team is researching policy strategies for decreasing lead exposure and increasing lead screening rates among King County children.
- The King County Board of Health is currently developing Healthy Housing Guidelines & Recommendations that include strategies to reduce lead exposure.
- The Best Starts for Kids plan with its focus on promotion, prevention and early intervention proposes dissemination of accurate and current information on environmental health issues like exposure to lead and other toxins; and community-based parenting education and workforce development for medical providers, child cares and other home-based businesses to address environmental health risks to children and families.
- Seattle Public Utilities tested 14 homes in Seattle for lead in drinking water and did not find lead above the action level of 15 ppb.

Potential Next Steps

King County is committed to removing barriers that limit the ability of residents to fulfill their potential. Low-income households, people of color, and children face a disproportionate burden of lead exposure and poisoning in King County because many of them live in poorly maintained housing and work in high exposure jobs. The attached proposed Resolution expresses support for actions and policies that aim to identify and reduce exposure to lead.

Attachment

1. Board of Health Resolution No. 16-07

ⁱ U.S. Census Bureau. (2005). 2005 American Community Survey. Retrieved on March 11, 2008 from <http://factfinder.census.gov>.

ⁱⁱ King County, Department of Community and Human Services. (2005). The King County Consortium Consolidated Housing and Community Development Plan for 2005-2009.

ⁱⁱⁱ Washington State Legislature. Notifiable Conditions. WAC 246-101-010 (2014)

^{iv} Bellinger DC, Stiles KM, Needleman HL. Low-level lead exposure, intelligence and academic achievement: a long-term follow-up study. *Pediatrics*. 1992;90(6):885-861

^v Centers for Disease Control and Prevention. CDC Response to Advisory Committee on Childhood Lead Poisoning Prevention Recommendations in “Low Level Lead Exposure Harms Children: A Renewed Call of Primary Prevention”. 2012

^{vi} Bellinger DC. Prenatal exposures to environmental chemicals and children's neurodevelopment: an update. *Saf Health Work*, 2013; 4(1):1

^{vii} Centers for Disease Control and Prevention. CDC's State Surveillance Data. Retrieved on June 16, 2016 from <https://www.cdc.gov/nceh/lead/data/state.htm>.

^{viii} Davies, Kate. & Hauge, Dietrich. Economic Costs of Diseases and Disabilities Attributable to Environmental Contaminants in Washington State. Seattle, WA; 2005.

^{ix} Muening, Peter. (2009). The Social Costs of Childhood Lead Exposure in the Post-Lead Regulation Era. *Arch Pediatr Adolesc Med*, 2009; 163(9): 844-849.

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King County

King County Board of Health

Staff Report

Agenda item No: 9

Date: July 21, 2016

BOH Briefing No: 16-B14

Prepared by: Laura Hitchcock

Subject

Gun violence prevention program and public health approaches to firearm suicide prevention.

Gun violence in King County and the public health approach

In Washington state, suicide was the eighth leading cause of death in 2014, with firearm suicide the 14th leading cause of death. Among people under age 25, suicide was the second leading cause of death (20% of all deaths).

In King County, between 2009 and 2013, 642 residents died from a gun injury (128 per year), including 35 children ages 19 and younger (seven per year). During the same period, 436 King County residents were hospitalized for nonfatal gun injuries (87 per year), including 82 children ages 19 and younger (16 per year).

Of all suicides in King County between 2010 and 2014, 41% were firearm suicide. King County has the third highest firearm suicide rate among the ten largest counties in the United States. Of firearm deaths, more adults die by firearm suicide than youth, but youth suicides are not insignificant. Males are more likely to die by firearm suicide than females. American Indian/Alaska Natives and whites have the highest firearm suicide rates.

Public Health - Seattle & King County's gun violence prevention program, part of Executive Dow Constantine's gun violence prevention initiative, takes a public health approach to curbing gun violence, defined as deaths and injuries caused by firearms that are intentional (suicide and homicide) and unintentional. The approach recognizes the need to work with multiple partners, including law enforcement, health care, and community-based agencies, to address this issue.

A public health approach to gun violence identifies the burden of injury and death through data collection and analysis, identifies risk and protective factors, utilizes or develops interventions to decrease risk or increase protective factors, and evaluates and diffuses these approaches across the population, including tailored approaches based on effectiveness with particular groups.

Past and current work on gun violence prevention

Historically, the Public Health – Seattle & King County has addressed gun violence in its Violence and Injury Prevention Program through partnerships with Harborview, Seattle Children's, and the Washington State Department of Health. A main focus has been raising awareness about safe storage of firearms, based on evidence that safe storage is a protective factor against unintentional injuries, youth suicide, and even adult suicide.

Together with the above partners, Public Health created the nationally-known LOK-IT-UP campaign, which encourages firearm retailers to provide discounts to customers seeking to purchase safe storage devices. Public Health's LOK-IT-UP website features participating retailers, examples of effective safe storage devices, how devices work, and research on safe storage.

Launched in 2013, the Executive's gun violence initiative enabled a deeper review of data surrounding firearms-related injuries and deaths in King County through the development of reports and other activities.

Public Health continues to define, refine and strengthen the public health approach to gun violence, including review of both risk and protective factors for different types of communities and populations. With support from the City of Seattle, Public Health released two reports: "The Impact of Firearms on King County's Children, 1999-2012"; and "Gun Violence in King County", which looked more broadly across the lifespan. Data analyzed in these reports was updated for a new Firearm Fact Sheet in November 2015.

Public Health is reviewing the burden of firearm deaths by King County health reporting area to understand how communities are impacted. Another example is using the child death review process, which reviews every unexpected death in children under age 18, to conduct a review of youth firearm suicides in 2014. The review shows that firearms used in youth suicide are frequently accessible to youth as a result of being unsafely stored.

In 2013, approximately 24% of King County adults (371,000 people) reported firearms present in or around their homes. Among adults reporting presence of a firearm, an estimated 33% (123,000 people) stored them loaded and of those who keep their guns loaded, 52% (64,000 people) stored them loaded and unlocked.

With firearm storage data as a backdrop and bolstered by research highlighting the protective effects of safe storage, the LOK-IT-UP campaign was re-launched to include new strategies to change social norms and educate gun owners by working with Concealed Pistol License (CPL) staff at law enforcement agencies throughout King County. By utilizing a 'brief intervention' script for staff to educate and inform CPL applicants (King County has about 99,000 CPL license holders) about the importance of safe storage, the impacts of unsafely stored firearms on family and community safety are highlighted.

In 2014, Public Health led a countywide summit on gun violence prevention focused on identifying and understanding available data and opportunities to share data. In November 2015, Public Health partnered with the United States Department of Justice to raise awareness about the potential for unsafely stored firearms to become 'crime guns'. Bus ads and a video of King County Sheriff John Urquhart demonstrating proper use of a safe storage device were part of the

campaign. Additional work included media outreach resulting in a Seattle Times editorial in support of safe storage in fall, 2015.

In May 2016, Public Health hosted a second countywide summit on firearm suicides to coincide with new emphasis on prevention through a statewide Suicide Prevention Plan. This summit convened experts in military and first responders suicide prevention, health care and mental health professionals, experts in Adverse Childhood Experiences (ACES), and community connectedness. King County's Department of Community and Human Services is also proposing a "Zero Suicide Approach" through community-based work supported by the Mental Illness and Drug Dependency Levy in 2017.

Next Steps

Public Health - Seattle & King County will continue to identify opportunities for public health interventions, including raising awareness about what is happening in King County with respect to firearm injuries and deaths and burdens in particular communities. Public Health will use strategic partnerships with other local, statewide and regional leaders, and others committed to a public health approach, and continue to review data and research as it becomes available.

Public Health along with Seattle Children's, the Washington Chapter of the American Academy of Pediatrics, and the Harborview Injury Prevention Research Center is co-convening a new statewide network that will share information and strategies to identify emerging best practices to reduce and eliminate gun-related injuries and deaths, including firearm suicide.

Public Health – Seattle & King County is also participating on a new statewide task force called the "Safer Homes Task Force", convened by Forefront, a suicide prevention group at the University of Washington, to work with firearm retailers to raise awareness and recognition of the risk of firearm suicide. A report will be submitted to the legislature by the task force.

Attachments

1. Guns in our community

Guns in our community

Storing guns locked and unloaded, with ammunition locked separately, can reduce the risk of injuries and deaths involving children and teens.

Did you know...?

- In the United States, **33,636 people died in 2013** as a result of guns. 63% of these deaths were suicides and 35% were homicides.
- In Washington State, **108 children (age 17 or younger) died as a result of guns between 2010 and 2014**. During this period, 158 children were hospitalized. In King County, **23 children died as a result of guns between 2010 and 2014**. 42 children were hospitalized in King County during this period.
- In 2013, an estimated **64,000 adults in King County reported keeping a gun loaded and unlocked**.
CDC WISQARS (Web-based Injury Statistics Query and Reporting System), Accessed Oct. 2015

Children, youth and guns

Guns and our schools:

- During the 2013-2014 school year, the WA State Superintendent of Public Instruction reported 91 incidents involving a gun on school premises, transportation systems, or school facilities.
WA Superintendent of Public Instruction, Weapons in Schools Ten Year Trend Report
- In 2014, over 10% of 8th grade students, almost 20% of 10th grade students and over 25% of 12th grade students in King County reported that they would not be caught if they carried a handgun without parental permission.
WA State Healthy Youth Survey, 2014
- In 2013, 6% of Seattle youth in grades 9-12 reported having carried a gun on at least 1 day during the last 30 days.
CDC Youth Risk Behavior Surveillance System (YRBS), Youth Online: High School YRBS

Guns in our homes:

- In 2013, approximately 24% of King County adults (371,000 people) reported firearms present in or around their homes. Among these adults, an estimated 33% (123,000 people) stored firearms loaded. Of those who kept their guns loaded, 52% (64,000 people) stored them loaded and unlocked.
WA State Department of Health, Behavioral Risk Factor Surveillance System, 2013
- Parent perceptions of children's behavior with firearms do not predict actual behavior. One study revealed that boys estimated to have "low interest" in playing with a real handgun were as likely to play with or pull the trigger as children perceived to have "moderate to high interest."¹ Another study revealed that parents living in homes with guns who reported their children had never handled a gun in their homes were contradicted by their child's self-report.²
American Academy of Pediatrics 2001; Arch Pediatr Adolesc Med. 2006

Gun suicides

- Firearms are the primary method of suicide in Washington State.
WA State Department of Health, Fatal Injury Data Tables, November 2014
- From 2009 to 2013, 139 youth (age 17 or younger) died by suicide in Washington; 49 of these youth (35%) died from firearms. During this same period, 37 youth died by suicide in King County; 9 youth (24%) used firearms.
WA State Department of Health, Fatal Injury Data Tables, October 2015
- A study of adolescent suicides found that over half were carried out with guns from the adolescent's home. More than 75% of the firearms used in suicide attempts and unintentional injuries were stored in the residence of the victim, a relative, or friend.³
Arch Pediatr Adolesc Med. 1999

Gun violence, homicides and crime

- In Washington State, a child or teen is killed by gunfire every 8 days.
Children's Defense Fund, Children in Washington Factsheet, March 2013
- In 2014, 56% of homicides in Washington State were committed with guns.
Washington Association of Sheriffs & Police Chiefs, Crime in WA, 2014 Annual Report
- From 2009 to 2013, 62 homicides occurred among youth (ages 5-17) in Washington; 38 (61%) of these youth died as a result of guns.
WA State Department of Health, Fatal Injury Data Tables, October 2015
- During the same period, 93 youth (ages 5-17) were hospitalized for gun assault injuries in Washington; King County youth accounted for 32% of these nonfatal injury hospitalizations (30 youth).
WA State Department of Health, Nonfatal Injury Data Tables, November 2014
- According to the WA Association of Sheriffs and Police Chiefs, the total value of guns reported stolen in Washington State in 2013 was \$3,990,218.

Guns in Washington State and King County

- An estimated 36% of Washington adults (1,889,000 people) 18 years and older reported having a gun in or around their home in 2013. More than half of these adults (51% or 971,000 people) reported having an unlocked firearm.
WA State Behavioral Risk Factor Surveillance, System, 2013
- 1,472 Washington State residents were hospitalized for nonfatal gun injuries (294/year), including 277 children ages 19 and younger (55/year).
WA State Department of Health, Nonfatal Injury Data Tables, 2009-2013, October 2015
- 3,038 Washington State residents died from a gun injury (607/year), including 191 children ages 19 and younger (38/year).
WA State Department of Health, Fatal Injury Data Tables, 2009-2013, October 2015
- 436 King County residents were hospitalized for nonfatal gun injuries (87/year), including 82 children ages 19 and younger (16/year).
WA State Department of Health, Nonfatal Injury Data Tables, 2009-2013, October 2015
- 642 King County residents died from a gun injury (128/year), including 35 children ages 19 and younger (7/year).
WA State Department of Health, Fatal Injury Data Tables, 2009-2013, October 2015

Data Methods

National firearm nonfatal injury data were obtained from CDC WISQARS™ (Web-based Injury Statistics Query and Reporting System). Washington State data on firearms comes from the Washington State Behavioral Risk Factor Surveillance System. Data on high school student access to guns comes from the Washington State Healthy Youth Survey for 2014.

For more information, please contact: Whitney Taylor at 206-263-8730. For electronic fact sheet, please visit:
<http://www.kingcounty.gov/healthservices/health/injury/lokutup/FirearmFacts.aspx>.

References

¹ Jackman GA, Farah MM, Kellermann AL, Simon HK. Seeing is Believing: What do Boys Do When They Find a Real Gun? *Pediatrics*. 2001; 107(6): 1247-1250; DOI: 10.1542/peds.107.6.1247. <http://pediatrics.aappublications.org/cgi/content/abstract/107/6/1247>

² Baxley F, Miller M. Parental Misperceptions About Children and Firearms. *Arch Pediatr Adolesc Med*. 2006;160(5):542-547. doi:10.1001/archpedi.160.5.542. <http://archpedi.jamanetwork.com/article.aspx?articleid=204929>

³ Grossman DC, Reay DT, Baker SA. Self-inflicted and Unintentional Firearm Injuries Among Children and Adolescents: The Source of the Firearm. *Arch Pediatr Adolesc Med*. 1999;153(8):875-878. doi:10.1001/archpedi.153.8.875. <http://archpedi.jamanetwork.com/article.aspx?articleid=347593>